



Muntions

PASSIONATE ABOUT MALT SINCE 1921

Celebrating
100 years

Join The Brewing REVOLUTION^{0%}N

...with Muntions *new*
*Premium Alcohol Free
Malt Extract*

A versatile base from which you can create
a wide range of great tasting
alcohol free beers

*“Makes
shockingly
good alcohol
free beer”*



FABIAN CLARK
Senior Product Development Technologist

The rise of the 'SOBER CURIOUS'

The low and no alcohol landscape...

“With the rise of low and no alcohol beer, the challenge brewers are facing is how to create the flavour profile of a true beer.”

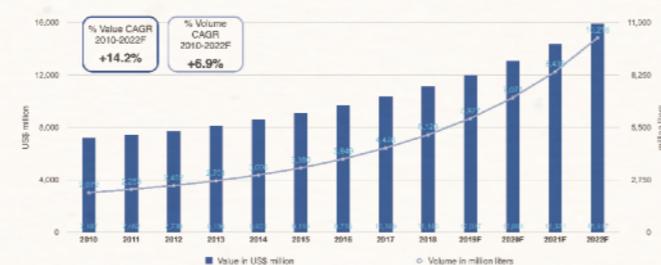
→ The rise in No/Lo beverages has increased, with Europe leading by 71% of the total global launches (UK at 12%)

→ UK adults aged 18-34 are more likely to drink No/Lo beer, and this will carry into their later years

*“With a growing focus from consumers on wellness and mindful living, **sobriety** could be a more popular lifestyle choice for people who want to be more **energised, sleep better,** and feel more present **in the moment**”*

Non/low alcohol beer market now valued at over US\$11.1 billion

Figure 8 | Global Alcohol Free Drinks: Non/Low Alcohol Beer Market Value (retail sales - US\$m) and Volume (retail and out-of-home sales - million litres) (2010-2022F)



Source: IJ2022 Market Insights - Food & Beverage. Note: Value data are available for 30 global markets. Volume data are available for 22 global markets.

THE TASTE of things to come...



Muntons Premium Alcohol Free Malt Extract is a versatile, alcohol free base from which you can create a range of great tasting, hassle-free no/low alcohol beers.

- ◆ The most versatile, great-tasting alcohol free (AF) base
- ◆ Adds body, flavour and mouthfeel to your beer
- ◆ Consistent results every time - no more time wasted on trial and error brews
- ◆ Create incredible-tasting alcohol free beers quickly
- ◆ No need to invest in expensive equipment

It's time to take *your* brewing to an all-time low. Contact our sales team for more information hello@muntons.com 01449 618300



BREWING INNOVATION with Muntons

Muntons Alcohol Free malt extract makes the brewing of low or no alcohol beers simple and fuss free. Take a look at the table below to see the different methods and the clear benefits in brewing with Muntons Alcohol Free Malt Extract:



“We have taken care to create a well-balanced canvas.”

	Arrested Fermentation	Table Beer Dilution	Blending of Extracts and Flavours	Reverse Osmosis	Vacuum Distillation	Muntons Premium Alcohol Free Malt Extract
Cost of Investment	Good/Economic	Neutral	Neutral	Negative/Expensive	Negative/Expensive	Good/Economic
Cost of Ingredients	Good/Economic	Neutral	Negative/Expensive	Good/Economic	Good/Economic	Negative/Expensive
Speed of Process	Good/Economic	Negative/Expensive	Good/Economic	Negative/Expensive	Negative/Expensive	Good/Economic
Aroma Profile	Good/Economic	Negative/Expensive	Good/Economic	Good/Economic	Good/Economic	Good/Economic
Flavour Profile	Negative/Expensive	Negative/Expensive	Good/Economic	Good/Economic	Good/Economic	Good/Economic
Ease of Production	Good/Economic	Good/Economic	Good/Economic	Negative/Expensive	Negative/Expensive	Good/Economic
Flexibility	Good/Economic	Good/Economic	Negative/Expensive	Good/Economic	Good/Economic	Good/Economic
Option of 0%	Negative/Expensive	Negative/Expensive	Good/Economic	Good/Economic	Good/Economic	Good/Economic

Key	Good/Economic	Neutral	Negative/Expensive
Very technical and requires excellent cooling and fermentation management			
Cheap but very difficult to get flavour right. No way of producing 0% product.			
Blending enables ease of production but very reliant on supplier for adjustments or further new product development			
Very good product but high investment required.			
Very good product but high investment and footprint required.			
Designed for flexibility and ease of use. Flavour and aroma matching easy due to use in brewhouse.			

COST IN COMPARISON TO 4% PALE ALE 30BB PRODUCTION

	4% PALE ALE		ALCOHOL FREE MALT EXTRACT	
Malt KG	725	£ 362.50	350	£ 805
Bittering Hops KG	5	£ 62.58	3.2	£ 40.05
Aroma Hops KG	10	£ 263.72	10	£ 263.72
Yeast Kg	2.5	£ 256.65	0	£ 0
Energy Elec KwH	448	£ 53.40	210	£ 25.03
Energy Gas KwH	446	£ 8.56	659	£ 12.65
Cooling FV KwH Elec	86.66	£ 9.79	86.66	£ 9.79
Cooling over Ferm & conditioning KwH Elec	222	£ 25.06	121	£ 13.64
Duty		£ 1,969.00		£ 0
Brew Cost		£ 3,011.30		£ 1,169.90
BB Cost		£ 100.38		£ 39.00
Cost of 11 gallon keg		£ 30.67		£ 11.92
Pint Cost		£ 0.35		£ 0.14
Sales price 11 gallon keg		£ 75.00		£ 65.00
Contribution		£ 44.33		£ 53.08

TYPICAL DOSING RATE	
1BB	12KG
5BB	60KG
10BB	120KG
20BB	240KG
30BB	360KG
40BB	480KG
50BB	600KG

High temperature mashing comes out at about £29 per BB

Dealcoholising comes in at roughly £36 per BB plus the investment in the equipment

WHAT is it?

Muntons Premium Alcohol Free Malt Extract is a brand-new malt extract made from Pale Brewing Malt and hops designed to make zero alcohol brewing easy.

HOW does it work?

During our process, we add a blend of hops to give a mild bitterness and improve the foam stability of the product. Using our signature process of heating and modifying wort sugars, we have created a low sweetness product with a mild fermentation aroma.

Premium Alcohol Free Malt Extract is designed with the brewers creativity in mind. We have taken care to create a well-balanced canvas offering a true beer flavour and aroma for brewers.

We encourage you to create your own unique alcohol-free masterpiece using Premium Alcohol Free Malt Extract as your simple, convenient base!



“This project has been one of the most challenging of my career: taking over two years to develop. It’s a joy to be part of Muntons’ innovation team and I am extremely proud of the work that we have achieved to create our Premium Alcohol Free Malt Extract.

I’m very happy to catch up over a pint and talk recipes with you!

Fabian Clark
Senior Product Development Technologist

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WHAT do I need to do?

We have made our **Premium Alcohol Free Malt Extract** as easy to work with as possible; all you need is a brewery! Fill the copper with hot liquor and add Premium Alcohol Free Malt Extract. Bring the mixture to a boil and after allowing for the hops already incorporated within Premium Alcohol Free Malt Extract, add your own chosen bittering hops. Continue as per your

normal brewing process with late addition and aroma hops to craft your desired aroma and flavour. After the boil, chill the wort without any oxygenation and then transfer to a sterile tank. At this point you are ready for filtration, carbonation and packaging, unless you want to add further flavours from fruit or dry hops.

During packaging we recommend the addition of a preservative or pasteurisation to ensure your product is shelf stable. We have a few recommendations that could be of interest when looking at safe packaging of non-fermented beverages:

	Cold Sterilisation	Potassium Sorbate	Pasteurisation	Cold Sterile Filtration
Declaration	No	Yes	No	No
Requirements	pH of 4.2	None	None	Sterile packing unit

TRY before you buy!

If you would like a sample or a taste of the beer we've brewed using Alcohol Free Malt Extract at the Muntons Centre for Excellence, please contact our sales team. You are of course welcome to use our pilot brewery for your own recipe creation or trial brewing.

For samples, more in-depth calculations or recipe builds, please contact our sales and technical teams at:

hello@muntons.com
01449 618300



WHY use Muntons?

At Muntons, we understand that great beer begins with great malt and that our customers are looking to brew unique beers of exceptional quality. Combining our brewing teams' knowledge and our Centre for Excellence's pilot brewing facilities, we can develop and create extraordinary beers using malts from our extensive portfolio, ready for replication on an industrial scale.

We are not just maltsters. Our team of innovation and product technologists can help develop products and provide support within your brewhouse or virtually too.

RECIPES

for success!

ALE STYLE:

Alcohol Free Malt Extract	50kg
Brewing Quality Water	6BB
- Alkalinity of 40 ppm	
- Calcium chloride 150 ppm	
- Calcium Sulphate 200 ppm	
Cascade Hops	1kg
Citra Hops	2kg
Ascorbic Acid	1kg
Potassium Sorbate	0.5kg

APPLICATION:

In this application, 50kg of extract and the ascorbic acid are diluted into 5.5BB of water.

This mixture is then boiled. Once the product reaches a rolling boil, add the Cascade hops.

Continue to boil the product for 30 minutes.

After 30 minutes the heat is turned off and the Citra hops is added.

After a contact time of 20 minutes, the product needs to be filtered and cooled to 15-20C

The cooled and filtered product is then combined with a further 0.5BB of water with the potassium sorbate mixed into it.

This final mixture is then carbonated and packaged into bottles.



LAGER STYLE:

Alcohol Free Malt Extract	40kg
Brewing Quality Water	10HL
- Alkalinity of 40 ppm	
- Calcium chloride 100 ppm	
- Calcium Sulphate 100 ppm	
Hallertau Mittelfrüh Hops	1kg
Perle Hops	1kg
Ascorbic Acid	1kg
Potassium Sorbate	0.5kg

APPLICATION:

In this application, 40kg of extract and the ascorbic acid are diluted and mixed into 9HL of water.

This mixture is then boiled. Once the product reaches a rolling boil, add the Hallertau Mittelfrüh Hops.

Continue to boil the product for 30 minutes.

After 30 minutes the heat is turned off and the Perle hops is added.

After a contact time of 20 minutes, the product needs to be cooled to 15C and then filtered.

The cooled and filtered product is then mixed with a further 100L of water. At this stage the potassium sorbate is added.

This final mixture is then carbonated and packaged into bottles.



100% sustainable malt made from locally grown barley

Alcohol Free Malt Extract is made from 100% sustainable malt.

We use locally grown barley and use only water, heat and air to create malt which is then further processed to create malt extract. Emissions per tonne of product are 25% less than 10 years ago and we are the only maltster to have signed up to a science-based target to reduce emissions even further (<https://sciencebasedtargets.org>).

To see more visit www.muntons.com/sustainability

100% Sustainable

- All our products are made using locally grown cereals
- Natural product made using only heat, water and air
- Made using grain that is 100% sustainable therefore producing 100% sustainable malt

Muntons is the world's greenest maltster. Here are the facts:

- We are the only maltster in the world to sign up to the globally recognised Science Based targets programme
- We have already reduced our carbon footprint by 22% since 2010
- All of the barley we use is 100% sustainable
- Since 2008, we have reduced the carbon footprint of our barley supply chain by 32%
- By 2021, we will have reduced it by 45% since 2010 – years ahead of our the target we set in the Science Based target programme
- Reduction in our environmental impact is fundamental in any new investment programme that we begin
- Our innovation team consistently develops methods for our customers to reduce their energy use through the incorporation of malted ingredients
- We are a founding member of a group formed to improve supply chain sustainability and resilience, a group including 140 farmers through the Sustainable Futures initiative
- Muntons' anaerobic digestion plant not only produces green electricity for use on-site in Stowmarket but creates a nutrient-rich fertiliser to supply local barley growers
- We are proud to have been awarded the EcoVadis Gold medal for sustainability – twice!

100% SUSTAINABLE MALT



MEET THE FAMILY...



PREMIUM ALCOHOL FREE MALT EXTRACT
Tap into the growing alcohol-free trend by using as your base our alcohol free malt extract – just add your choice of hop, carbonate and bottle.

PREMIUM SOUR MALT EXTRACT
Our innovative soured extract offers a simple, convenient way to introduce popular sour notes consistently, without risk of plant contamination and is simple to replicate from batch to batch.

PALE ALE MALT EXTRACT
A brewing extract with enhanced levels of fermentability, ideal as a brew extender, to increase beer strength, enhance colour and help to maintain yeast performance.

WHEAT MALT EXTRACT
Made from a blend of malted wheat and malted barley, carefully extracted to retain all of the characteristics of wheat malt, this offers an ideal way to improve head formation and retention and enhance body.

ROASTED MALT EXTRACT
Our roast malt extract has strong savoury, smoky and roasted flavours so use sparingly as even low level inclusions will bring out these distinctive flavour notes in your chosen beer style.

ULTRA DARK MALT EXTRACT
This brewing quality malt extract, made from selected roasted grains, introduces very intense colour with little flavour addition, ideal for colour adjustment.

AS WELL AS INNOVATIVE NEW PRODUCTS LIKE OUR PREMIUM ALCOHOL FREE EXTRACT, MUNTONS SUPPLIES A COMPREHENSIVE RANGE OF BREWING EXTRACTS TO COVER EVERY BEER STYLE AND REQUIREMENT.

WHETHER IT'S A CRAFT PALE, A SUMPTUOUS STOUT OR A REFRESHING SAISON WHEAT BEER, MUNTONS HAS AN EXTRACT TO HELP YOU REACH BREWING PERFECTION.

OUR EXTRACTS GIVE YOU THE FLEXIBILITY TO REACT TO TRENDS, CREATE SMALL BATCHES AND RESPOND TO DEMAND AT A MOMENT'S NOTICE.

EACH MADE FROM FINEST QUALITY MALT, THESE EXTRACTS ARE SUPPLIED IN CONVENIENT 25KG JERRY CANS. SPEAK TO OUR SALES TEAM FOR MORE INFORMATION.



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Should you have any technical questions;



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MUNTONS. MAKE IT HAPPEN.